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09/727,743	12/01/2000	Michael R. Gorman	54465USA4B.018	4855

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EXAMINER

EASHOO, MARK

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 07/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/727,743

Applicant(s)

GORMAN ET AL.

Examiner

Mark Eashoo, Ph.D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-40 and 43-57 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30-40 and 43-57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Specification

Applicant is *again* reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

The abstract of the disclosure is objected to because the abstract does not include a brief discussion of the process. Correction is required. See MPEP § 608.01(b).

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: -- FORMING STRUCTURED SURFACES WITH A HELICALLY WOUND TOOL ROLL --.

The disclosure is objected to because of the following informalities: The priority or related application information on page 1, line 1 is incorrect because application 09/259,781 has been allowed.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 30, 32-34, 43-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rochlis (US Pat. 3,312,538) in view of Miller et al. (US Pat. 5,679,302).

Regarding claims 30, 43-48: Rochlis teaches the basic claimed process of making a mechanical fastener (1:57-65 and 11:40-45), comprising : providing a tool roll having a structured surface (Figs. 1-8); extruding a molten thermoplastic onto the outer surface of the tool roll to form a structured surface on a film formed thereon (Fig. 19); and removing the structured film from the tool roll (Fig. 19). Rochlis also teaches numerous and various recess shapes (Figs. 17, 21, and 22), including rectilinear shapes (Figs. 10-13 and 21-22).

Rochlis does not teach modifying protrusions to form a fastener. However, Miller et al. teaches modifying protrusions to form a fastener (Fig. 6b). Rochlis '583 and Miller et al. are combinable because they are from the same field of endeavor, namely, forming mechanical fasteners. At the time of invention a person of ordinary skill in the art would have found it obvious to have modified protrusions to form a fastener, as taught by Miller et al., in the process of Rochlis '583, since Miller et al. suggest that such modifying produces an equivalent and alternative fastener product.

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Regarding claim 32-34: Miller et al. teaches protrusions of various aspect ratios (4:24-56). Miller et al. would have been combined with Rochlis '583 for the same reasons as set forth above regarding claim 30.

Regarding claims 49-51: Rochlis '583 teaches at least one area of the tool roll free of cavities (Fig. 3a, arc through elements 36'). Fig. 3a also teach a longitudinal section along the line drawn through elements 34' and 36'.

Claims 35-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rochlis (US Pat. 3,312,583) in view of Miller et al. (US Pat. 5,679,302) as applied to claims 30, 32-34, 43-51 above, and further in view of Muraski et al. (US Pat. 5,393,475) and Rochlis (US Pat. 3,541,216).

Rochlis '583 and Miller et al. teach the basic claimed process.

Regarding claims 35-36: Rochlis '583 teaches extruding a material between a nip formed by two rolls, since the material path travels between elements 129 and 116. Nonetheless, if Rochlis does not teach extruding into a nip formed between two tool rolls, then Murasaki et al. teaches extruding into a nip formed between two tool rolls (Fig. 1). Rochlis '583 and Murasaki et al. are combinable because they are concerned with a similar technical difficulty, namely, forming a structured surface on a sheet/film. At the time of invention a person of ordinary skill in the art would have found it obvious to have extruded a material into a nip formed between two tool rolls, as taught by Murasaki et al., in the process of Rochlis '583, since Murasaki et al. suggests that a sheet having structure/texture on both sides is a desired product.

Regarding claim 37: Rochlis '583 does not teaches a vacuum (ie. vented) applied to the tool roll. However, Rochlis '216 teaches a vacuum (ie. vented) applied to the tool roll (3:53-75 and 4:35-38). At the time of invention a person of ordinary skill in the art would have found it obvious to have applied a vacuum or vented the tool roll, as taught by Rochlis '216, in the process of Rochlis '583, since Rochlis '216 suggest that such venting allows better flow of the material into the cavities by preventing entrapped air therein.

Regarding claim 38: Rochlis '583 teaches a heat mold/tool roll (12:70-75).

Claims 31, 39, 40 and 52-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rochlis (US Pat. 3,312,583) in view of Miller et al. (US Pat. 5,679,302) as applied to claims 30, 32-34, 43-51 above, and further in view of Granitsas (US Pat. 2,793,585).

Rochlis '583 and Miller et al. teach the basic claimed process.

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Regarding claim 31: Rochlis '583 does not teach a tool roll comprising a cylindrical base roll helically wound with wire(s) forming a structured surface. However, Granitsas teaches a tool roll comprising a cylindrical base roll helically wound with wire(s) forming a structured surface (Figs 1-6). Rochlis '583 and Granitsas are combinable because they are from the same field of endeavor, namely, embossing. At the time of invention a person of ordinary skill in the art would have found it obvious to have used a tool roll comprising a cylindrical base roll helically wound with wire(s) forming a structured surface, as taught by Granitsas, in the process of Rochlis '583, since Granitsas suggests that such tool roll provides an economic benefit (1:42-44).

Regarding claim 39: Granitsas further teaches a wire having a varying cross-section along its length (Figs. 1 and 3-6). Granitsas would have been combined with Rochlis for the same reasons as set forth above.

Regarding claim 40: Rochlis (Figs. 1-12) and Granitsas (Figs. 3-6 and 14-15) both teaches a disk and wire, respectively, having a plurality of voids with substantially constant volume and/or depth. Granitsas would have been combined with Rochlis for the same reasons as set forth above regarding claim 31.

Regarding claim 52-57: Rochlis '583 does not teach a tool roll comprising a cylindrical base roll helically wound with wire(s) forming a structured surface. However, Granitsas teaches a tool roll comprising a cylindrical base roll helically wound with wire(s) forming a structured surface (Figs 1-6). Rochlis and Granitsas are combinable because they are from the same field of endeavor, namely, embossing or forming structured surfaces on a sheet/web. At the time of invention a person of ordinary skill in the art would have found it obvious to have used a tool roll comprising a cylindrical base roll helically wound with wire(s) forming a structured surface, as taught by Granitsas, in the process of Rochlis '583, since Granitsas suggests that such tool roll provides an economic benefit (1:42-44).

Response to Arguments

Applicant's arguments filed 30-JUN-2003 and 12-MAY-2003 have been fully considered but they are not persuasive, because:

1.) Applicant's argument that Rochlis is not appropriate since Rochlis deals with pile-type products is not persuasive because applicant has excluded Rochlis' broad description of the pile-like sheets which clearly and specifically states that the "filament-like pile elements may have their like pile-like surfaces pressed together to cause a mechanical frictional interfit or intergrip of their respective pilings to

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hold the sheets together" (see 1:57-64). Applicant has merely argued only one of many embodiments disclosed in Rochlis, namely, an embodiment containing magnetic material.

2.) Applicant's argument that there is no need to modify the procedure of Rochlis because Rochlis allegedly suggests that any and all desired end shapes can be produced using a mold cavity is not persuasive. Applicant's argument neglects that fact that other advances in the art have occurred since the Rochlis patent issued, one of which is that of Miller et al. Miller et al. clearly teaches that tips of pile-type filaments can be reshaped to form heads that engage with conventional loop-type fasteners. Since Rochlis teaches various pile products, including those which form a mechanical interfit or intergrip, the combination of Rochlis and Miller et al. is proper because they are both from the same field of endeavor (ie. fasteners) and are concerned with a similar technical difficulty (ie. forming filaments which form a mechanical interlock or intergrip).

3.) Applicant's argument that there is no indication that Rochlis could be used as a mechanical fastener in a "hook and loop" type fastener presumes ignorance upon a person of ordinary skill in the art rather than such person being a skilled artisan. The entire body of prior art of record clearly shows that hooked filaments of similar size and shape to those formed by Rochlis are known to engage with conventional loop fastener material. Alleging that the hooks and or filaments shapes of Rochlis would not engage with loop fastener material simply because Rochlis does not mention such a mechanical interlock is not persuasive in view of the evidence of record including Miller et al.

4.) Applicant's argument that there is no indication that a rectilinear stem structure would have any particular advantage over other shapes in Rochlis is not persuasive because: Rochlis teaches that the rectilinear stem structure is known in the art; and applicant fails to argue the combination of references.

In further response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to applicant's argument that there is no indication a rectilinear stem structure would have any particular advantage over other shapes, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the

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intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

It is maintained that a person of ordinary skill in the art in view of Miller et al. would have found it obvious to have used the rectilinear filament structure as taught by Rochlis, or any of the filament cross-sections therein, and have modified the structures by the process of Miller et al. in order to form an equivalent and alternative fastener product.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Eashoo, Ph.D. whose telephone number is (703) 308-3606. The examiner can normally be reached on 7am-3pm, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (703) 308-3853. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Mark Eashoo, Ph.D.

Primary Examiner

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24/JUL/03

me

July 24, 2003